

Event unit formation under a cross linguistic perspective.

Christiane v. Stutterheim & Johannes Gerwien, University of Heidelberg

Events are fundamental units in human perception and cognition. The definition of what event units are varies across disciplines. A core criterion is related to the fact of ‘quality change over time’. This criterion, however, leaves room for variation across the dimensions of quality as well as time. Both dimensions are involved in what has been called ‘level of granularity’. While earlier studies on event unit formation have shown that subjects select different levels of granularity when segmenting the continuous stream of perception (Newton’s experimental work 1973, Zacks & Radvansky 2014) it still is not clear which criteria subjects draw on, when forming event units. In the presentation we will argue for the hypothesis that language is a major factor in event unit formation.

Languages differ with respect to the conceptual categories to which they attribute cognitive prominence on the basis of either grammaticalization or lexical differentiation. A language which requires obligatory marking of phases of an event by aspectual verbal categories, for example, forces its speakers to attend to these differences. A language which differentiates object specific features in the verbal lexicon of position verbs (*sitzen, stehen, liegen*) forces its speakers to attend to features of a visual input which provide the basis for selecting the respective verb. Cognitive processes which are motivated by linguistic structure in this sense are highly automatized, deeply entrenched in the course of first language acquisition.

Earlier cross linguistic studies on event construal and verbal representation of events have shown that speakers of different languages a) segment visual input at different break points into event units and b) select different components of the visual input for verbal representation (v. Stutterheim et al. 2012) So far these two aspects of event construal have not been investigated in their interrelation. A situation in the world is complex, in that different quality changes can take place at a given time interval, such as a leaf which is falling and rotating at the same time or a person who is walking and approaching a goal (Bennett 2002). In order to form an event unit an observer has to select a *layer* of the complex composition of different qualities which entails the relevant criteria for identifying break points. This is where language comes into play.

Experimental cross linguistic studies in the domain of motion events are taken as evidence for the role of the linguistically packaged conceptual categories in event unit formation. Results will be presented from both verbal and non-verbal tasks. Speakers of four languages which vary with respect to typological features in the domains of spatial and temporal cognition (French, Tunisian, German and English) saw short real world video clips. In one experiment they were asked to segment the input non-verbally (button-press-method), in a second experiment they were asked to verbalise the scenes.

Our hypothesis is supported by two findings: a) the cross linguistic differences found in segmentation patterns converge across the verbal and the non-verbal task. b) The cross linguistic differences in the selection of information representing the scenes correspond to typological differences at the level of grammaticalization and lexicalization patterns. Speakers select different layers of the scenes depicted for forming event units.

In conclusion the findings will be discussed in the context of theories of event cognition focusing on the role of language.

Bennett, Jonathan (2002): What events are. *The Blackwell guide to metaphysics* 43-65.

Newton, Darren (1973): Attribution and the unit of perception of ongoing behavior. *Journal of Personality and Social Psychology*, 28, 28.

Radvansky, Gabriel A/Zacks, Jeffrey M (2014): *Event cognition*. Oxford University Press.

Stutterheim, Christiane von/Andermann, Martin/Carroll, Mary/Flecken, Monique/Schmiedtová, Barbara (2012): How grammaticized concepts shape event conceptualization in language production: Insights from linguistic analysis, eye tracking data, and memory performance. *Linguistics*, 50, 833-867.